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**UNITED STATES PATENT APPLICATION TRANSMITTAL FORM**

**BOX PATENT APPLICATION**  
**ASSISTANT COMMISSIONER FOR PATENTS**  
**Washington, D.C. 20231**

Docket No.: YOR9-2000-0244-US1

Sir:

Transmitted herewith for filing is the patent application of

Inventor(s): Dimitri Kanevsky; Mariusz Sabath and Alexander Zlatsin

For: SMART CALENDAR

Enclosed are:

**XXX** Specification (12 pps.) consisting of: Description (7 pps); Claims (4 pps);  
Abstract (1pp);

**XXX** 5 sheets of drawings;

**XXX** Declaration and Power of Attorney;

**XXX** Associate Power of Attorney;

**XXX** An assignment of the invention to: **International Business Machines Corporation** including \$40.00 recordation fee and Assignment  
Recordation Form Cover Sheet;

       Information Disclosure Statement (with copies of patent);

       Form - PTO-1449;

       Verified Statement Claiming Small Entity Status; and

       Priority of U.S. Patent Application Serial No.                 , filed on  
is claimed under 35 U.S.C. §120.

The Filing Fee is calculated below.

CLAIMS AS FILED				
(1) For	(2) Number Filed	(3) Number Extra	(4) Rate	(5) Basic Fee \$710.00
Total Claims	16 - 20 =	0	x \$18.00	\$0
Independent Claims	3 - 3 =	0	x \$80.00	\$0
Multiple Dependent Claim Fee		x \$270.00 = \$0.00		
<b>TOTAL FILING FEE</b>		<b>\$710.00</b>		

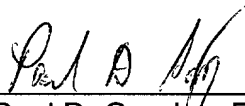
1/2 FILING FEE FOR SMALL ENTITY	\$N/A
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**XXX** A check in the amount of \$ 750.00 for the filing fee (\$710) and assignment recordal fee (\$40) is enclosed.

**XXX** The Commissioner is hereby authorized to charge any additional fees under 37 C.F.R. §§1.16 and 1.17 which may be required with this communication or during the entire pendency of the application, or credit any overpayment, to **Deposit Account No. 01-0467**. A duplicate copy of this Form is enclosed.

Address all future communications to: **Paul D. Greeley, Esq.**  
**Ohlandt , Greeley, Ruggiero & Perle, L.L.P.**  
**One Landmark Square, 10th Floor**  
**Stamford, Connecticut 06901-2682**  
**U.S.A.**  
**Telephone: (203) 327-4500**  
**Telefax: (203) 327-6401**

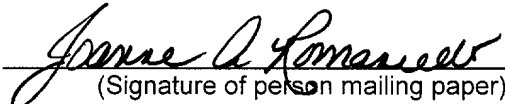
November 7, 2000  
Date of Signature

  
\_\_\_\_\_  
Paul D. Greeley, Esq.  
Attorney for Applicant(s)  
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.  
Registration No. 31,019  
(203) 327-4500

CERTIFICATE OF EXPRESS MAILING

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Joanne A. Romaniello  
(Typed name of person mailing paper)

  
\_\_\_\_\_  
(Signature of person mailing paper)

## **SMART CALENDAR**

### **FIELD OF THE INVENTION**

The present invention relates to the Internet and more particularly, to integrating with the Internet an optionally designed calendar system.

### **BACKGROUND OF THE INVENTION**

In today's modern world organization is a key. Today, almost everybody owns a calendar that they use for appointments, dates to remember, and important events. Calendars exist everywhere, from computers, to cars, to laptops, to a person's desktop. For people, calendars act as a personal reminder and a daily schedule that they need to follow. The problem that exists with calendars is that most people own a paper calendar that they may put on a desktop or hang on a wall. This poses as a problem when people also have a calendar that they use on their computer, because if a person fills a date in on the computer calendar they have to fill the same information on other calendars so they do not mistake any dates.

Solutions for this problem are, to limit the number of calendars that a person owns or, to just have an Internet calendar that lists all dates and appointments.

The first solution, limiting the amount of calendars a person has, can be very inconvenient for the person, because the person would have to be at a certain point to be able to find out what appointments, meetings or events that person may have to attend. The person may also want to be able to put separate events on separate calendars.

The second solution, putting all events on the Internet, can also be very time consuming and inconvenient for persons to have to log on to the Internet every time they would like to check a date. Also, if the Internet is tied up, they would not be able to go online and check a date.

### SUMMARY OF THE INVENTION

Accordingly, it is a primary object of the present invention to achieve convenience for a person desiring to have a calendar and to keep track of all the activities he has planned to attend by selective use of the Internet – rather than being restricted to it and having to log on all the time.

The primary feature of this invention resides in the creation of an external calendar that is connected to the Internet which can provide instant copies of the calendar, rewrite information on one calendar to another, and create a hassle-free way to check calendar dates. This is accomplished by inserting a small digital chip into a calendar which allows the calendar to be connected to the Internet and to perform certain operations. The calendar is provided with a screen and a special digital pen which allows a user to fill in information (dates, events, appointments) into special date boxes.

These date boxes expand when chosen and then they can have information (dates, events, appointments) written within the boxes. The user can write in their normal hand writing style inside the box and then read it later. When the user is done writing within the box, the box contracts into the calendar. The user can also change dates through the Internet.

Calendars can also be used for methods of expanding and producing a business market; meaning, that if a travel business sees the calendar of a person who is traveling to a foreign country, they can immediately ask to help this person

plan his trip. Or, if a person is taking a long road trip, a traffic company may check the time of departure and prepare a traffic report for the person.

If a person owns a paper calendar that is not connected to the Internet in any way, there can be a video camera that will record what the person writes down on that calendar. This will help the person be able to keep track of dates in case something happens to the calendar or for businesses to be able to expand. In order to display on this calendar data that is stored in some other user's computer, calendars one can use a special projector that projects information on the calendar in specified places (like a movie is displayed on a screen). The technique for such projecting on curved restricted area is described in another patent application Serial No. 09/437,621.

The foregoing and still further objects and advantages of the present invention will be more apparent from the following explanation of the preferred embodiments of the invention in connection with the accompanying drawings.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 depicts a system in which the smart calendar is arrayed for operation through a network.

Fig. 2 depicts how the cameras work when they capture the image of the calendar.

Fig. 3 depicts how information is inputted into a desktop calendar using a digital pen.

Fig. 4 is a flow chart which depicts the operations that the CPU performs in the market server.

Fig. 5 is a flow chart explaining the function of the weather server.

Fig. 6 is a flow chart that depicts how the traffic server functions on the smart calendar.

### DESCRIPTION OF PREFERRED EMBODIMENTS

Referring now to Fig. 1, one can see how the smart calendar is used through a network 100. An ordinary paper calendar 101 is provided. Pointed at the paper calendar is a video camera 105. Along with the video camera 105, a projector 106 is pointed at the calendar. The information is captured at the video camera 105, and the information displayed through the projector 106 is sent to the network 100 through a computer 113. A CPU 112 is located within the computer 113 that can perform the following operations: read information and data picked up by the video camera 105; control the projector 106 and display the necessary images; and, finally, control the video camera 105 and make sure it records the necessary information.

Calendar 102 is an example of a desk smart calendar that includes a chip 107, and a digital pen 114. This calendar is also connected to the network 100. Calendar 103 is the same as calendar 102 that is located on a desktop, but calendar 103 is hung on a wall. Calendar 103 also has a chip 107 and a digital pen 114. The computer which contains the computer calendar is labeled 120. 104 represents a computer calendar. The CPU running in the computer is represented by 108. All of this information that is inputted into the calendars can be viewed, through operation of the projector 106, on calendar 101, when all of the data inputted into the calendars is sent through the network 100, and from the network to computer 113. The network 100 is also connected to servers, such as the market server 109, which scans over all the smart calendars and finds information that could be useful to that company or business. For example, if a child was having a birthday a company that plans birthday parties could make

contact or advertise for the birthday child. The network 100 is also connected to a weather server 110, which scans over smart calendars and predicts weather for people who may be traveling on certain dates. The traffic server 111 is also connected to the network. It can scan over smart calendars and show traffic for areas that people may be traveling through and be able to pick the best route for the people to use to have a shorter trip.

Referring to Fig. 2, one can appreciate how the cameras work when they capture the image of the calendar 101. The image of the calendar 101 is picked up by the camera 105. The camera then sends the image to the CPU 112 of computer 113, which displays on its screen the image 203. The Optical Character Recognizer (OCR) 201 connected to computer 113, recognizes character data and transforms them in some digital format (e.g. ASCII). For example, it sees that on the calendar page there is displayed "APRIL".

After the OCR produces ASCII string (APRIL), it is compared with data that is stored in a user's other calendar, for example, Calendar 104, that is located in some other computer 120. The calendars comparison module 209 (see Fig. 2) is responsible for comparing calendars to find the same date. For example, calendar 101's dates are compared to calendar 104's dates and the information is combined. As shown in 208, calendar 104 of computer 120 indicates that on April 10<sup>th</sup> "meet with manager at 12". The calendar's comparison module 209 transforms data from the calendar 104 of computer 120 and combines it with the data already present on calendar 101. The combined image is then sent by way of transformer 205 to the projector 106, where it is projected onto and displayed on Calendar 101.

Referring to Fig. 3, it will be understood how information is inputted into a desktop calendar using a digital pen. On a calendar 102 that contains a chip 107, digital pen 114 can be used to input information into the calendar. A person would go over to the desired date box 300 with their digital pen and tap the

corner 303 of the date box. In this example, the person has highlighted April 10<sup>th</sup>, 300. The chip 107 is responsible for making a date box enlarge when chosen. This is done so it is more convenient for the person to write their schedule for that date. 301 represents the enlarged form of the date box. Now, the person is free to write whatever they please in the box. When done writing the person hits the upper left corner 302 to make the box go back to its original size. The desktop calendar 102 is connected to the network 100 which is connected to other smart calendars or, as seen, to another computer 120 in the home. The handwriting can be read by a handwriting recognition system or it can read the other smart calendar in the household. Another way to input information into the desktop calendar 102 is to use a computer with a calendar that is connected to the desktop calendar 102. Then, using a telephone, one would dial up a telephone at the location of the desktop calendar 102, thereby allowing the user to input information from another location.

In Fig. 4, operations that the CPU performs in the market server are shown by means of a flow chart. The block 400 functions to separate data being sent from the calendar to the market server. 401 depicts the process of recognizing the data using either Automatic Handwriting Recognition or OCR which is another similar reference 402, by which data is then interpreted/understood after being recognized, using basic modern technology. For example, if it is read that a child s having a birthday, a computer can interpret that. But, if there is just an abbreviation for the birthday, a list is set up of all possible abbreviations for birthday. Operation 403 provides the classification called for. All the data that is entered is classified into their appropriate folders, (operation 404); this data is distributed to different marketing channels and businesses which go over the data and then send suggestions/advertisements to the user (405). By operation 406 the data sent from markets is received by a computer linked to the smart calendar 407 or, to the most used computer. This information could appear as a small addition to the calendar, such as a blinking



message. To do this, a date box is highlighted and then the data is entered (407). When opened, the advertisement given by the company is shown (408).

Fig. 5 is a flow chart explaining the function of the weather server 110. If the inputted data in a calendar is classified as a trip of some sort, the data may be sent to a weather server. By operation or step 500, weather related data is sent to the weather server. The date and time of the trip is documented and then checked (501). The weather is checked and if it may be hazardous or interfere with set plans, it is noted (502). The data about the weather for the scheduled date is then sent to the user's calendar or PC (503).

Fig. 6 is a flow chart that describes how the traffic server 111 functions on the smart calendar. By step 600, traffic related data is filtered from all the data on the calendar. By step 601, the data is analyzed and counted. For example, a check is made on how many people may be heading to a certain area, such as a city, movie theater, or even restaurant. This data is then used to predict the traffic and possible parking problems (602). By step 603, this data is finally sent to traffic organization services and to users who will be traveling on the mentioned dates.

The invention having been thus described with particular reference to the preferred forms thereof, it will be obvious that various changes and modifications may be made therein without departing from the spirit and scope of the invention as defined in the appended claims.

## THE CLAIMS

We claim:

1. A calendar system connected to a network comprising:  
  
at least first and second calendars;  
  
means for sending the data displayed on either the first calendar or the second calendar to the other calendar;  
  
a computer for comparing the contents of the first and second calendars and for filling them with data missing from either, such that both the first and second calendars are able concurrently to display altogether the same data.
2. A calendar system as defined in Claim 1, in which the computer for comparing the contents includes means for recognizing and interpreting the first calendar's content, wherein the system displays on the first calendar the data that is stored in the second calendar, if such data is not displayed already on the first calendar.
3. A system as defined in Claim 2, further including a video camera and a projector pointed at the first calendar, wherein the system displays on the first calendar the data that is stored in the second calendar via the projector.
4. A system as defined in claim 2, further including a third calendar having a screen, and an input means in the form of a digital pen wherein what is written on the third calendar by the digital pen is sent to the first and second calendars.

5. A system as defined in Claim 4, wherein the third calendar includes a digital chip for connection to the internet.
6. A system as defined in claim 3 in which the video camera captures the image of the first calendar, means connected to the first calendar for sending the image to the computer OCR for recognizing character data and transforming such into a digital format, wherein said OCR produces a string of data that denotes a particular date; means for comparing data stored in the second calendar located in another computer and having the same date; means for comparing the calendar content to find the same date; means for combining the information responsive to the dates having been compared.
7. A system as defined in claim 6 further including a projector transformer which transforms data on the computer's calendar and adjusts it to an image, and means for transforming the image and sending it to the projector so that it is displayed on the first calendar.
8. A system as defined in claim 1 further including a third, desktop calendar having a digital chip means and a digital pen, the digital pen being used to input information into the third calendar; the third calendar having a date box which is adapted to be enlarged responsive to the tapping of a corner thereof, the chip means being responsive to the tapping of the date box for enlarging that date box;
9. A process for operating a calendar system comprising the steps of:

sending the data displayed on either a first calendar or a second calendar to the other calendar; and

comparing the contents of the first and second calendars and filling them with data missing from either, such that both the first and second calendars are able concurrently to display altogether the same data.

10. A process of operating a calendar system as defined in Claim 9, further comprising the steps of:

providing at least first and second calendars;

providing a video camera and a projector, both pointed at the first calendar, wherein the system displays on the first calendar the data that is stored in the second calendar over the projector.

11. A process as defined in Claim 10, further comprising the steps of recognizing and interpreting the first calendar's content.

12. A process as defined in Claim 11, further comprising:

capturing the image of the first calendar;

sending the image to a computer OCR for recognizing character data, and transforming the data into a digital format.

13. A process as defined in Claim 10, further comprising the steps of classifying all data based on a list of abbreviations for words and distributing the data to different marketing channels.

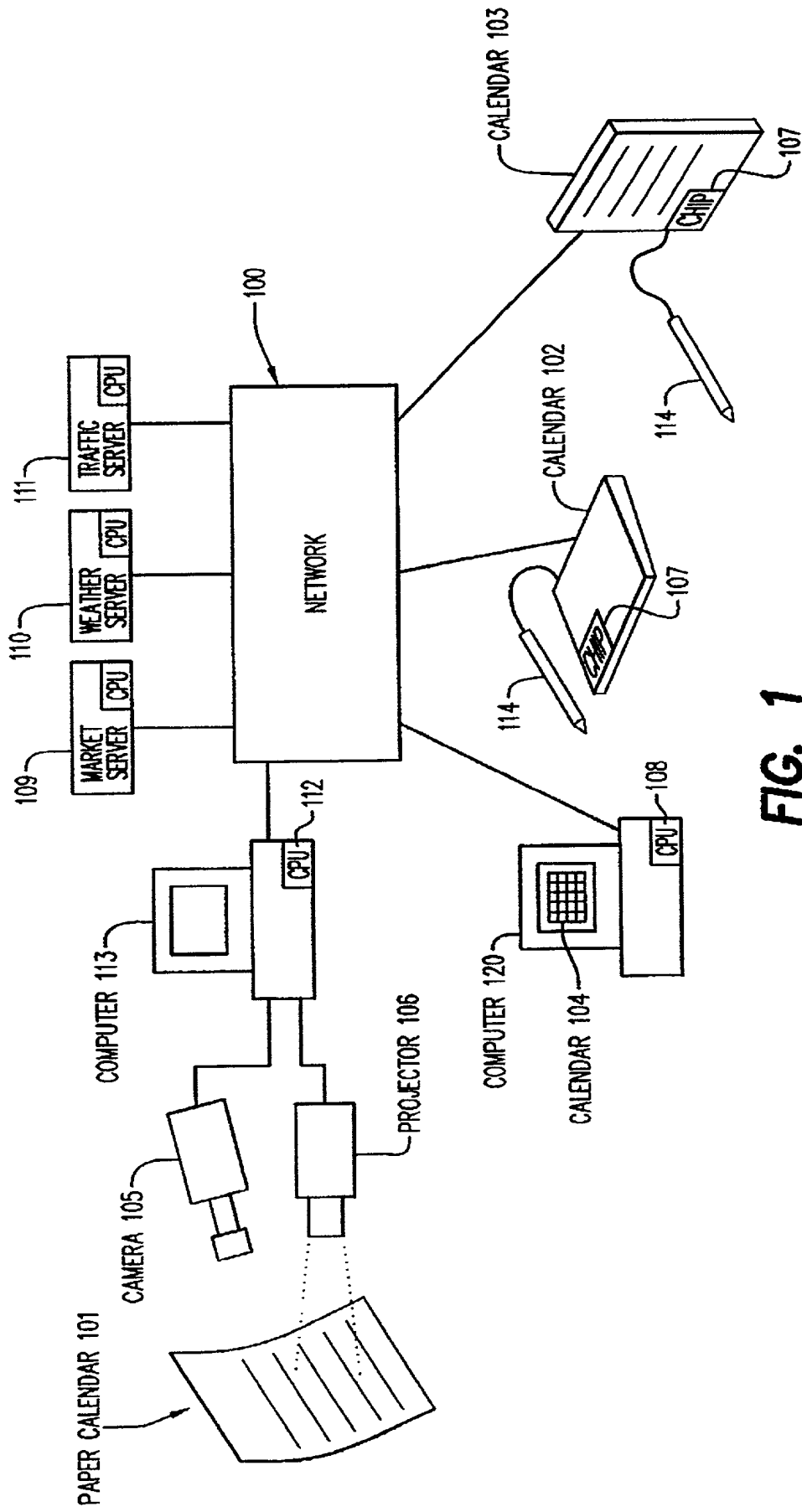
14. A process as defined in Claim 11, further comprising the steps of marketing and sending suggestions/advertising.
15. A process as defined in Claim 12, further comprising transmitting the data to a computer, thence to a smart calendar.
16. A memory media for a computer comprising:

means for controlling the computer operation to perform the following steps:

- (a) sending the data displayed on either a first calendar or a second calendar to the other;
- (b) sending the captured image of the first calendar to the OCR of the computer for recognizing character data, and transforming the data into a digital format; and
- (c) comparing the contents of the first and second calendars and filling them with data missing from either, such that both the first and second calendars are able concurrently to display altogether the same data.

## ABSTRACT

The idea of this invention is to be able to create an external calendar that is connected to the Internet which can provide instant copies of the calendar, rewrite information on one calendar to another, and create a hassle free way to check calendar dates. One way this is done is by inserting a small digital chip into a calendar which allows the calendar to be connected to the Internet and to perform certain operations. The calendar will have a screen and a special digital pen which allows a user to fill in information (dates, events, appointments) into special date boxes.



**FIG. 1**

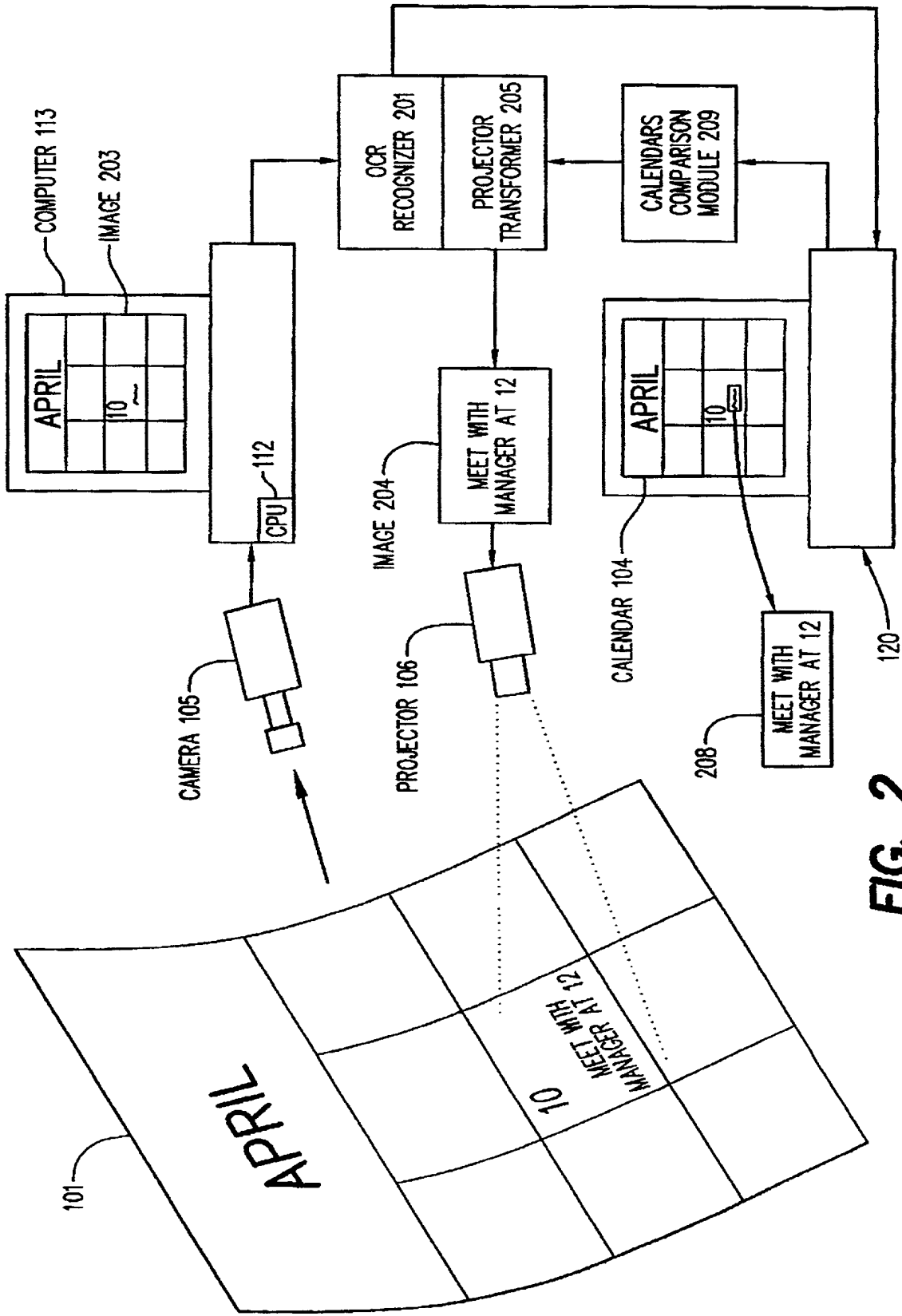


FIG. 2



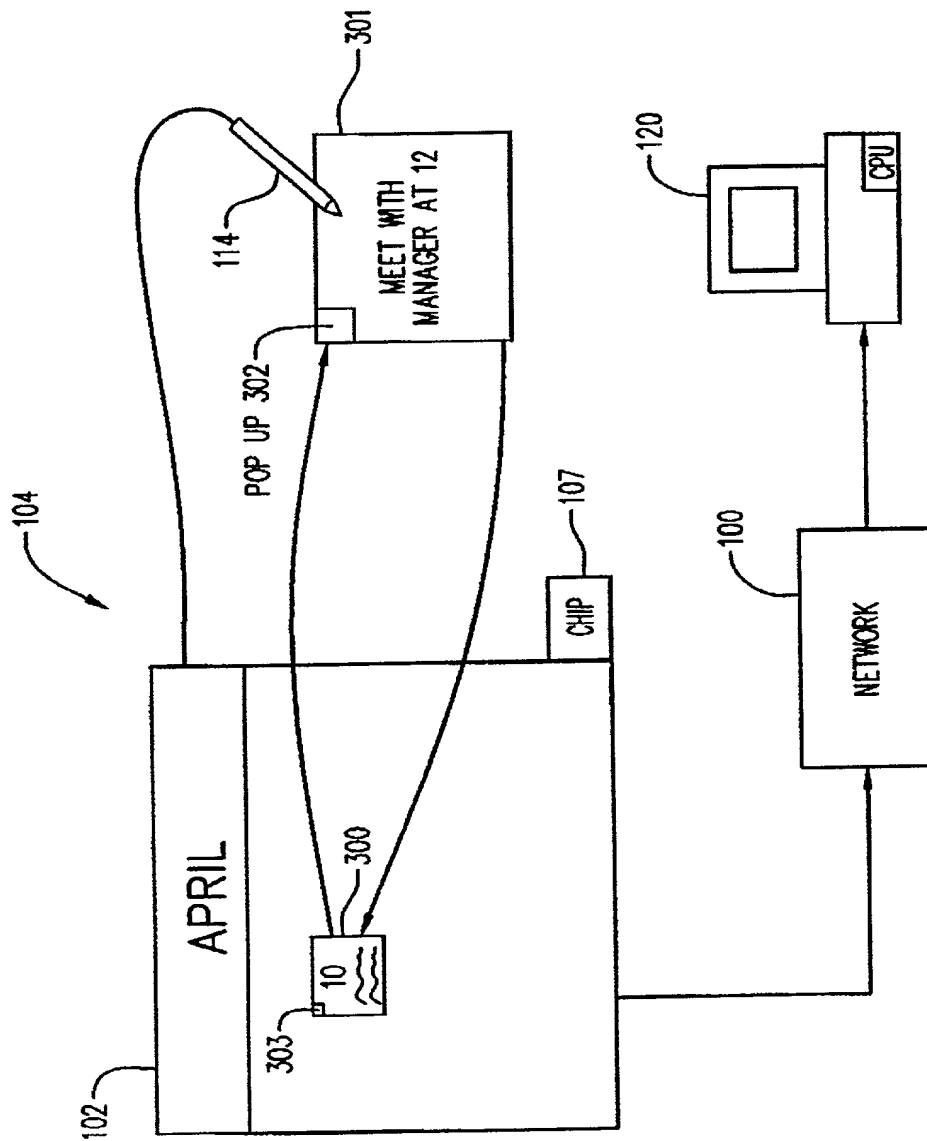
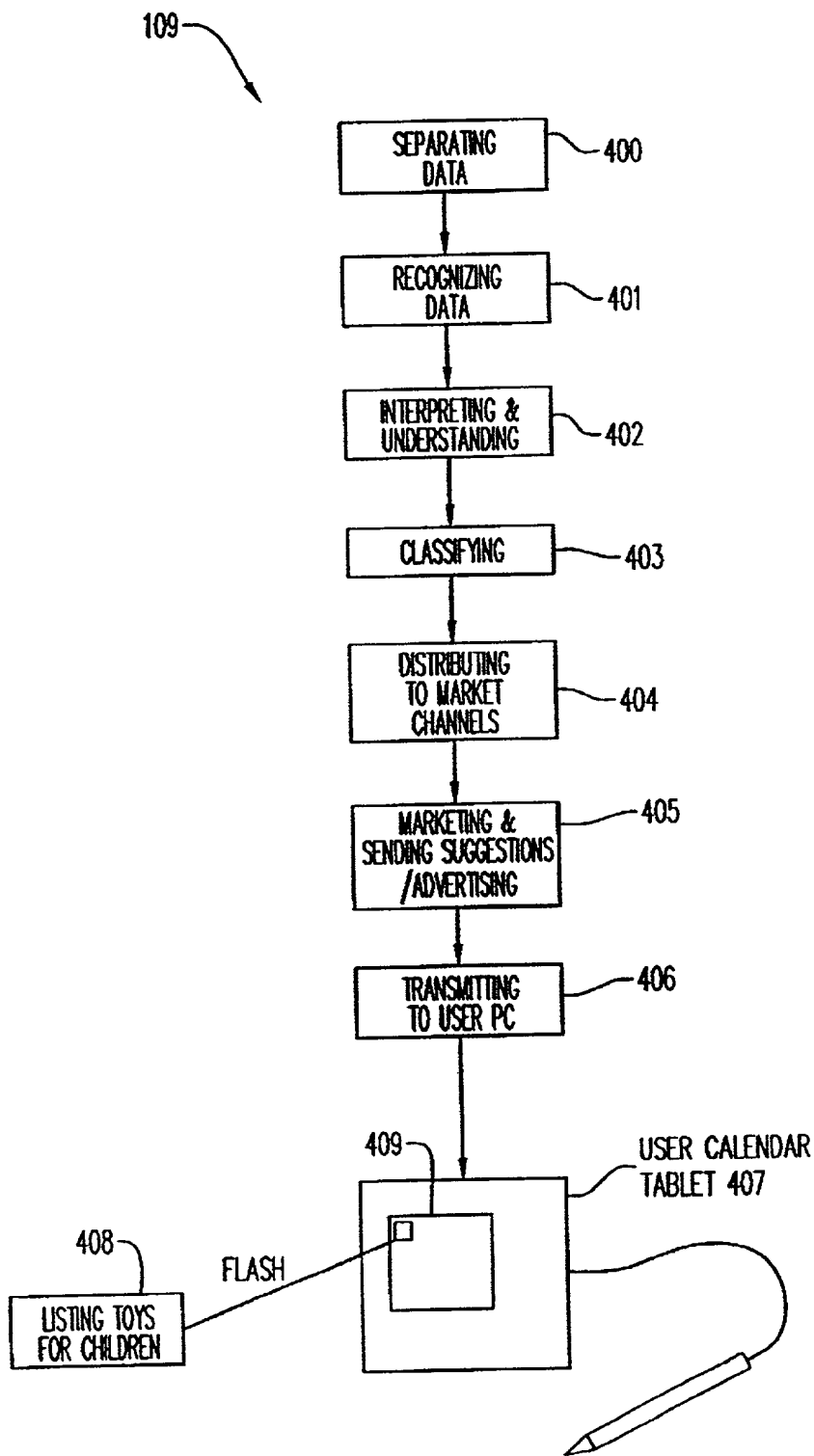
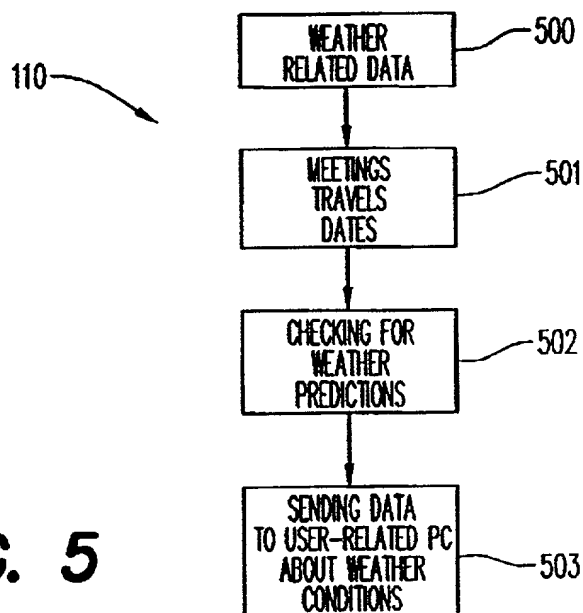


FIG. 3

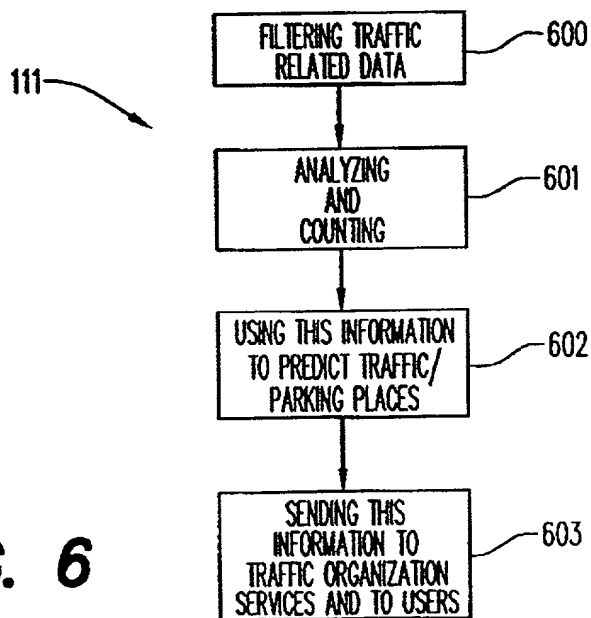


**FIG. 4**

**FIG. 5**



**FIG. 6**



# DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

Docket No. YOR9-2000-0244-US1

As below named inventors, we hereby declare that:

Our residences, post office addresses and citizenships are as stated below next to our respective names.

We believe we are the original, and first joint inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled:

## **SMART CALENDAR**

the specification of which

(check one) XXX is attached hereto.

\_\_\_\_\_ was filed on \_\_\_\_\_ as Application Serial No. \_\_\_\_\_  
and was amended on \_\_\_\_\_ (if applicable).

We hereby state that we have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to us to be material to the patentability of this application as defined in Title 37, Code of Federal Regulations, §1.56.

We hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate(s) listed below and have also identified below any foreign application(s) for patent or inventor's certificate(s) having a filing date before that of the application on which priority is claimed:

<u>Prior Foreign Application(s)</u>			<u>Priority Claimed</u>
_____ (Number)	_____ (Country)	_____ (Day/Mon/Year Filed)	___ Yes ___ No
_____ (Number)	_____ (Country)	_____ (Day/Mon/Year Filed)	___ Yes ___ No
_____ (Number)	_____ (Country)	_____ (Day/Mon/Year Filed)	___ Yes ___ No

We hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, we acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.)

(Filing Date)

(Status - patent, pend , abandon.)

(Application Serial No.)

(Filing Date)

(Status - patent, pend., abandon.)

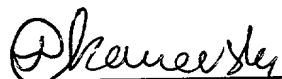
POWER OF ATTORNEY: As named inventors, we hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

NAMES	REGISTRATION NUMBERS
Manny W. Schechter	31,722
Lauren C. Bruzzone	35,082
Christopher A. Hughes	26,914
Edward A. Pennington	32,588
John E. Hoel	26,279
Joseph C. Redmond, Jr.	18,753
Douglas W. Cameron	31,596
Wayne L. Ellenbogen	43,602
Louis P. Herzberg	41,500
Stephen C. Kaufman	29,551
Daniel P. Morris	32,053
Paul J. Otterstedt	37,411
Louis J. Percello	33,206
David M. Shofi	39,835
Robert M. Trepp	25,933
Marian Underweiser	46,134
Richard M. Ludwin	33,010
Marc A. Ehrlich	39,966

SEND CORRESPONDENCE TO:	DIRECT TELEPHONE CALLS TO:
Daniel P. Morris, Esq. IBM Thomas J. Watson Research Center P.O. Box 218 Yorktown Heights, New York 10598	Daniel P. Morris, Esq. Telephone: (914) 945 3217 Telefax: (914) 945 2947

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


FULL NAME OF INVENTOR	LAST NAME <b>KANEVSKY</b>	FIRST NAME <b>DIMITRI</b>	MIDDLE NAME
RESIDENCE & CITIZENSHIP	CITY <b>OSSINING</b>	STATE OR COUNTRY <b>NEW YORK</b>	CITIZENSHIP <b>US</b>
POST OFFICE ADDRESS	P.O. ADDRESS <b>1358 SPRING VALLEY ROAD</b>	CITY & STATE <b>OSSINING, NEW YORK</b>	ZIP CODE <b>10562</b>

Inventor's signature  Date Oct 27, 2000  
**Dimitri Kanevsky**

FULL NAME OF INVENTOR	LAST NAME <b>SABATH</b>	FIRST NAME <b>MARIUSZ</b>	MIDDLE NAME
RESIDENCE & CITIZENSHIP	CITY <b>SCARSDALE</b>	STATE OR COUNTRY <b>NEW YORK</b>	CITIZENSHIP <b>POLAND</b>
POST OFFICE ADDRESS	P.O. ADDRESS <b>60 MORROW AVENUE, APT. 4LS</b>	CITY & STATE <b>SCARSDALE, NEW YORK</b>	ZIP CODE <b>10583</b>

Inventor's signature  Date 10/27, 2000  
**Mariusz Sabath**

FULL NAME OF INVENTOR	LAST NAME <b>ZLATSIN</b>	FIRST NAME <b>ALEXANDER</b>	MIDDLE NAME
RESIDENCE & CITIZENSHIP	CITY <b>YORKTOWN HEIGHTS</b>	STATE OR COUNTRY <b>NEW YORK</b>	CITIZENSHIP <b>US</b>
POST OFFICE ADDRESS	P.O. ADDRESS <b>848 KESSLER PLACE</b>	CITY & STATE <b>YORKTOWN HEIGHTS, NEW YORK</b>	ZIP CODE <b>10598</b>

Inventor's signature  Date 10/27, 2000  
**Alexander Zlatsin**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kanevsky et al.  
Serial No.: Not Yet Assigned  
Filed: Herewith  
For: SMART CALENDAR  
Examiner: Not Yet Assigned  
Art Unit: Not Yet Assigned

Attorney Docket No.: YOR9-2000-0244-US1

IBM  
Thomas J. Watson Research Center  
P.O. Box 218  
Yorktown Heights, New York 10598

ASSOCIATE POWER OF ATTORNEY

Assistant Commissioner for Patents  
Washington, DC 20231

Dear Sir:

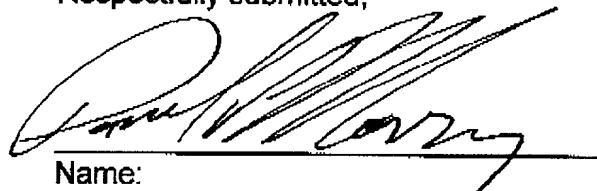
Please recognize Paul D. Greeley, Reg. No. 31,019; Harry F. Smith, Reg. No. 32,439 and Charles N.J. Ruggiero, Reg. No. 24,648 of the law firm Ohlandt, Greeley, Ruggiero & Perle, L.L.P. with offices at One Landmark Square, 10th Floor, Stamford, Connecticut 06901-2682, as an attorney, with full and complete powers to prosecute this patent application and to transact all business in the Patent and Trademark Office connected therewith.

Please continue to address all correspondence to:

Paul D. Greeley, Esq.  
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.  
One Landmark Square, 10th Floor  
Stamford, Connecticut 06901-2682  
Telephone: (203) 327 4500  
Telefax: (203) 327 6401

Respectfully submitted,

Date: Nov. 7, 2000



Name:  
Reg. No.: